1. _____ is the branch of science that is concerned with the study of the nervous system, especially the brain.
   A) Plasticity
   B) Neuroscience
   C) Clinical psychiatry
   D) Developmental psychology

2. How many neurons are there in the human brain?
   A) 50 million
   B) 50 billion
   C) 10 billion
   D) 100 billion

3. Messages from other neurons or specialized cells and sensory receptors are typically:
   A) collected by the synaptic vesicles.
   B) relayed by glial cells to the correct node of Ranvier.
   C) received by the dendrites.
   D) received by the axon terminals.

4. The resting potential is:
   A) the length of time that a neuron is incapable of activating after an action potential.
   B) the term used to describe how the sympathetic nervous system reduces arousal and conserves energy.
   C) a state in which a neuron has a negative electrical charge of about –70 millivolts.
   D) a state in which a neuron has a positive electrical charge of +70 millivolts.

5. Reuptake occurs:
   A) when the brain shifts functions from damaged areas to undamaged areas.
   B) when sodium ion and potassium ion channels open.
   C) in the small gaps in the axon called the nodes of Ranvier.
   D) when neurotransmitter molecules are reabsorbed by the presynaptic neuron.

6. Reduced brain levels of the neurotransmitter _____ is most notably involved in the progressive memory loss that characterizes Alzheimer's disease.
   A) GABA
   B) serotonin
   C) dopamine
   D) acetylcholine

7. Lydia experiences a rush of euphoria after her daily five-mile run. This sensation is known as:
   A) neurogenesis.
   B) the runner's high.
   C) the synaptic rush.
   D) the split-brain high.

8. Nicotine is classified as a(n):
   A) endorphin.
   B) SSRI.
   C) agonist.
   D) antagonist.

9. The terms *autonomic* and *somatic* refer to the two main subdivisions of the _____ nervous system.
   A) sympathetic
   B) central
   C) peripheral
   D) parasympathetic

10. The _____ functions as the main link between the nervous system and the endocrine system.
   A) adrenal medulla
   B) adrenal cortex
   C) amygdala
   D) hypothalamus

11. Epinephrine and norepinephrine are manufactured by the _____ gland(s) in the _____ system.
   A) adrenal; endocrine
   B) pineal; endocrine
   C) thyroid; limbic
   D) pituitary; limbic

12. The brainstem is made up of the _____ and the _____.
   A) forebrain; midbrain
   B) cerebellum; medulla
   C) reticular formation; pons
   D) midbrain; hindbrain

13. The _____ lobe primarily control's a person's ability to plan, initiate, and carry out voluntary movements and actions.
    A) frontal
    B) occipital
    C) parietal
    D) temporal

14. According to the box "Critical Thinking: "His" and "Her" Brains?", which of the following is FALSE?
    A) Men's brains tend to be much smaller than women's brains.
    B) Women and men have different proportions of gray to white matter in their brains.
    C) In general, the male brain is more asymmetrical and functions are more lateralized than in the female brain.
    D) Men's brains tend to be larger than women's brains.

15. Petro is unable to articulate ideas or understand spoken or written language because of brain damage. Petro suffers from:
    A) Parkinson's disease.
    B) Alzheimer's disease.
    C) the after effects of the split-brain operation.
    D) aphasia.

16. Psychologist and neuroscientist Roger Sperry is BEST known for:
    A) his efforts to debunk the pseudoscientific claims of phrenology.
    B) the discovery of neurogenesis in the adult human brain.
    C) his studies on split-brain patients.
    D) identifying the specific brain areas involved in different forms of aphasia.

17. Tom is a split-brain patient seated in front of a screen. As he focuses on the middle of the screen, the image of an apple is briefly flashed on the LEFT side of the screen. Tom will:
    A) be able to verbally name the object.
    B) be able to use his right hand to reach under the screen and pick up the correct object.
    C) verbally deny that any image appeared on the screen.
    D) probably have an epileptic seizure.

18. Karen is right-handed. A biopsychologist administers a PET scan of Karen's brain while Karen listens to one of her favorite pieces of music, Beethoven's *Third Symphony*. Which area of Karen's brain is likely to show the greatest activity on the PET scan?
    A) Broca's area
    B) Wernicke's area
    C) the cerebellum
    D) the right hemisphere

19. According to Pereira's study on exercise and neurogenesis, discussed in Psych for Your Life: Maximizing Your Brain's Potential,:
    A) experience has minimal effect on brain functions or structures.
    B) exercising regularly decreases the release of endorphins in the brain.
    C) while exercise promotes the growth of new neurons in the brains of mammals, findings are mixed in humans.
    D) exercise promotes the growth of new neurons in the human brain, just as it does in other mammals.

Answer Key

1. B
2. D
3. C
4. C
5. D
6. D
7. B
8. C
9. C
10. D
11. A
12. D
13. A
14. A
15. D
16. C
17. C
18. D
19. D